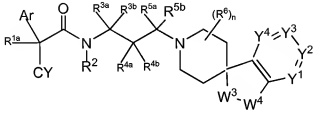
IN THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-32. Canceled.

Claim 33. (Currently Amended) A compound of structural formula I-1:



[I-1]

or a pharmaceutically acceptable salt thereof,

wherein:

R^{1a} is selected from: hydrogen, hydroxyl, and optionally halogen-substituted lower alkyl;

R^2, R^{3a}, R^{3b}, R^{5a} and R^{5b} are each independently selected from: hydrogen and optionally halogen-substituted lower alkyl;

R^{4a} and R^{4b} are each independently selected from: hydrogen, halogen, hydroxyl, and optionally halogen-substituted lower alkyl;

each R^6 is independently selected from: hydrogen, halogen and optionally halogen-substituted lower alkyl;

n is selected from an integer between 1 and 8;

W^3 is ~~selected from: $-O-$ and $-CH_2-$~~,

W^4 is ~~selected from: $-CH_2-$ and $-O-$~~,

~~with the proviso that W^3 and W^4 are not $-O-$ at the same time;~~

CY is a cyclopentane ring, a pyrrolidine ring, a piperazine ring, a piperidine ring, a benzene ring, a pyridine ring, a pyrazine ring, a pyrrole ring, a pyrazole ring, an imidazole ring, a triazole ring, a tetrazole ring, an oxazolidine ring, or a thiazole ring; which is optionally substituted with two or more substituents selected from Group α,

~~a cyclic group optionally having one, two or more substituent groups selected from Group α, which cyclic group is selected from:~~

~~(1) a 3 to 10 membered aliphatic carbocyclic group,~~

~~(2) a 3 to 10-membered aliphatic heterocyclic group,~~

~~(3) a 5 or 6-membered aromatic carbocyclic group, and~~

~~(4) a 5 or 6-membered aromatic heterocyclic group;~~

Y^1, Y^2, Y^3 and Y^4 are each independently selected from: –CH–, –CF–, –C(NHCOCH$_3$)–, –C(NHCOC$_2$H$_5$) – and –N–,

~~(1) methylene, which optionally has a substituent group selected from Group α, and~~

~~(2) a nitrogen atom,~~

with the proviso that not all of Y^1 to Y^4 are simultaneously nitrogen atoms;

Ar is a benzene ring, a pyridine ring, a pyrazine ring or a pyrimidine ring, unsubstituted or substituted with one or two substituents selected from Group β:

~~mono- or bi-cyclic aromatic carbocyclic or aromatic heterocyclic group which may have one, two or more substituent groups selected from Group β:~~

each Group α is independently selected from: halogen, hydroxyl, amino, nitro, oxo, mono-lower alkylamino, di-lower alkylamino, optionally halogen-substituted lower alkyl, optionally fluorine-substituted lower alkyloxy, lower cycloalkyloxy, lower alkyloxycabonyl, (lower alkyloxycarbonyl)amino, (lower alkyloxycarbonyl) lower alkylamino, lower alkylcarbonyl, lower alkylcarbonyloxy, (lower alkylcarbonyl)amino, (lower alkylcarbonyl) lower alkylamino, carbamoyl, mono-lower alkylcarbamoyl, di-lower alkylcarbamoyl, carbamoylamino, mono-lower alkylcarbamoylamino, di-lower alkylcarbamoylamino, (mono-lower alkylcarbamoyl) lower alkylamino, (di-lower alkylcarbamoyl) lower alkylamino, carbamoyloxy, mono-lower alkylcarbamoyloxy, di-lower alkylcarbamoyloxy, lower alkylsulfonyl, lower alkylsulfonylamino, sulfamoyl, mono-lower alkylsulfamoyl, di-lower alkylsulfamoyl, sulfamoylamino, (mono-lower alkylsulfamoyl)amino, (di-lower alkylsulfamoyl)amino, (mono-lower alkylsulfamoyl) lower alkylamino and (di-lower alkylsulfamoyl) lower alkylamino; and

each Group β is independently selected from: nitro, aryloxy, lower cycloalkyl, lower cycloalkyloxy, lower alkylenedioxy, halogen, hydroxyl, optionally hydroxyl- or fluorine-substituted lower alkyl and optionally fluorine-substituted lower alkyloxy.

Claim 34. (Previously Presented) The compound according to Claim 33, wherein R^{1a} is hydrogen, methyl or hydroxyl; and pharmaceutically acceptable salts thereof.

Claim 35. (Previously Presented) The compound according to Claim 33, wherein R^2 is hydrogen, methyl, ethyl, n-propyl or isopropyl; and pharmaceutically acceptable salts thereof.

Claim 36. (Previously Presented) The compound according to Claim 33, wherein both R^{3a} and R^{3b} are hydrogen atoms; and pharmaceutically acceptable salts thereof.

Claim 37. (Previously Presented) The compound according to Claim 33, wherein R^{4a} and R^{4b} are selected from the group consisting of hydrogen, fluorine and hydroxyl;
and pharmaceutically acceptable salts thereof.

Claim 38. (Previously Presented) The compound according to Claim 33, wherein R^{5a} and R^{5b} are hydrogen or methyl; and pharmaceutically acceptable salts thereof.

Claim 39. (Previously Presented) The compound according to Claim 33, wherein each R^6 is hydrogen;
and pharmaceutically acceptable salts thereof.

Claims 40 and 41. (Canceled)

Claim 42. (Currently Amended) The compound according to Claim 33, wherein CY is a substituent selected from the group consisting of phenyl, 4-fluorophenyl, 4-chlorophenyl, 3,4-difluorophenyl, 4-methoxyphenyl, 4-tolyl, 4-trifluoromethylphenyl, pyridinyl, pyridin-3-yl, pyrazinyl, ~~pyrimidinyl,~~ 6-fluoropyridin-3-yl, 2-fluoropyridin-4-yl, 6-trifluoromethylpyridin-3-yl, 6-methoxypyridin-3-yl, pyrrol-1-yl, pyrazolyl, imidazolyl, 2-methylimidazolyl, 4-methylimidazolyl, 1,2,3-triazol-1-yl, 4-methyl-1,2,3-triazol-1-yl, 1,2,4-triazol-1-yl, 1,2,3,4-tetrazol-1-yl, 1,2,3,4-tetrazol-2-yl, thiazolyl, pyrrolidin-1-yl, piperidinyl, 2-piperidon-1-yl, 2-pyridon-1-yl, 2-pyrrolidon-1-yl, oxazolidin-2-on-1-yl, 4-methanesulfonyl-piperazin-2-on-1-yl, and cyclopentyl~~, and cyclohexyl~~; or a ~~and~~ pharmaceutically acceptable salt ~~salts~~ thereof.

Claim 43. (Canceled)

Claim 44. (Previously Presented) The compound according to Claim 33, wherein Ar is a substituent selected from the group consisting of phenyl, 4-fluorophenyl, 3,4-difluorophenyl, 4-chlorophenyl, 4-methoxyphenyl, 4-tolyl, 4-trifluoromethylphenyl, pyridinyl, 6-fluoropyridin-3-yl, 6-trifluoromethylpyridin-3-yl, and 6-methoxypyridin-3-yl;
and pharmaceutically acceptable salts thereof.

Claim 45. (Currently Amended) The compound according to Claim 33 selected from the group consisting of:

~~(1)~~ (1) 2-(3,4-difluorophenyl)-2-(2-oxo-1-pyrrolidinyl)-N-[3-(spiro[5- fluoroisobenzofuran-1(3H), 4'-piperidin]-1-yl)propyl]acetamide,

~~(2)~~ (2) 2-(3,4-difluorophenyl)-N-methyl-2-(1H-1,2,3-triazol-1-yl)-N- [3-(spiro [isobenzofuran-1(3H), 4'-piperidin]-1-yl)propyl]acetamide,

~~(3)~~ (3) 2-(3,4-difluorophenyl)-N-methyl-2-(2H-1,2,3,4-tetrazol-2-yl)- N-[3-(spiro[isobenzofuran-1(3H), 4'-piperidin]-1-yl)propyl]acetamide,

~~(4)~~ (4) 2-(3,4-difluorophenyl)-N-methyl-2-(2-oxo-1(2H)pyridinyl)-N- [3-(spiro[isobenzofuran-1(3H), 4'-piperidin]-1-yl)propyl]acetamide,

~~(5)~~ (5) 2-(3,4-difluorophenyl)-N-methyl-2-(2-oxo-1- pyrrolidinyl)-N- [3-(spiro[5-fluoroisobenzofuran-1(3H),4'-piperidin]-1-yl)propyl]-acetamide,

~~(6)~~ (6) 2-(3,4-difluorophenyl)-N-methyl-2-(2-methyl-1H-imidazol-1- yl)-N-[3-(spiro[6-fluoroisobenzofuran-1(3H),4'-piperidin]-1-yl)propyl]-acetamide,

~~(7)~~ (7) 2-(3,4-difluorophenyl)-N-methyl-2-(2-methyl-1H-imidazol-1- yl)-N-[3-(spiro[5-fluoro-6-azaisobenzofuran-1(3H),4'-piperidin]-1-yl)propyl]acetamide,

~~(8) 2-(3,4-difluorophenyl)-2,2-dimethyl-N-methyl-N-[3-(spiro[5- fluoro-6-azaisobenzofuran-1(3H),4'- piperidin]-1-yl)propyl]acetamide~~

~~(9)~~ (8) 2,2-bis(6-fluoro-3-pyridinyl)-N-methyl-N-[3-(spiro[5-fluoro-6- azaisobenzofuran-1(3H),4'- piperidin]-1-yl)propyl]acetamide,

~~(10) 2,2-bis(4-fluorophenyl)-N-methyl-N-[3-(spiro[5-fluoro-6-azaisobenzofuran-1(3H),4'-piperidin]-1-yl)propyl]acetamide2-(3,4-difluorophenyl)-N-methyl-2-(1H-pyrrol-1-yl)-N-[3-(spiro[5-fluoro-6-azaisobenzofuran-1(3H),4'-piperidin]-1-yl)propyl]- acetamide,~~

~~(11) 2-(4-fluorophenyl)-N-methyl-2-(1H-pyrrol-1-yl)-N-[3-(spiro- [5-fluoro-6-azaisobenzofuran-1(3H),4'-piperidin]-1-yl)propyl]- acetamide,~~

~~(12) 2-(3,4-difluorophenyl)-N-methyl-2-(1H-pyrazol-1-yl)-N- [3-(spiro[5-fluoro-6-azaisobenzofuran-1(3H),4'- piperidin]- 1-yl)propyl]acetamide,~~

~~(13) 2-(3,4-difluorophenyl)-N-methyl-2-(1H-pyrrol-1-yl)-N- [3-(spiro[6-fluoro-5-azaisobenzofuran-1(3H),4'- piperidin]- 1-yl)propyl]acetamide,~~

~~(14)~~ (9) 2-(3,4-difluorophenyl)-N-ethyl-2-(2-oxo-1-pyrrolidinyl)-N- [3-(spiro[isobenzofuran-1(3H),4'-piperidin]-1-yl)propyl]acetamide,

~~(15)~~ (10) 2-(3,4-difluorophenyl)-N-ethyl-2-(4-methanesulfonyl)-2-oxo- 1-piperazinyl)-N-[3-(spiro[6-fluoroisobenzofuran-1(3H),4'-piperidin]-1-yl)propyl]acetamide, and

~~(16) 2,2-bis(4-fluorophenyl)-2-hydroxy-N-methyl-N-[3-(spiro[5-fluoro-6-azaisobenzofuran-1(3H),4'-piperidin]-1-yl)propyl]acetamide,~~
or a pharmaceutically acceptable salt thereof.

Claim 46. (Canceled)

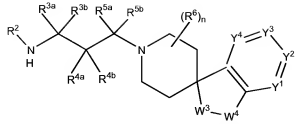
Claim 47. (Withdrawn) A method of antagonizing the melanin concentrating hormone receptor in a subject in need thereof comprising administering to the subject a melanin concentrating hormone antagonizing amount of a compound according to Claim 33.

Claim 48. (Withdrawn) A method for treating a condition selected from:
obesity, diabetes, hormone disorder, hyperlipidemia, gout, fatty liver, hepatitis, cirrhosis, stenocardia, acute heart failure, congestive heart failure, myocardial infarction , coronary atherosclerosis, hypertension, renal diseases, electrolyte abnormality, bulimia, emotional disturbance, depression, anxiety, epilepsy, delirium, dementia, schizophrenia, attention-deficit hyperactivity disorder, memory impairment, sleep disorders, cognitive failure, dyskinesia, paresthesias, smell disorders, morphine tolerance, drug dependence, alcoholism, infertility, preterm labor, sexual dysfunction, digestive disorders, respiratory disorders, cancer and pigmentation, in a subject in need of such treatment comprising administering to the subject 0.002 – 10 mg/kg per day of a melanin concentrating antagonist compound according to Claim 33.

Claim 49. (Withdrawn) A method for treating or preventing obesity in a subject in need thereof comprising administering to the subject 0.002 – 10 mg/kg per day of a melanin concentrating antagonist compound according to Claim 33.

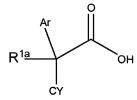
Claims 50-52. (Canceled)

Claim 53. (Previously Presented) A method for producing a compound according to Claim 33 of general formula [I-1], which comprises:
(1) amidating a compound represented by a general formula [IIa]:



[IIa]

wherein R^2, R^{3a}, R^{3b}, R^{4a}, R^{4b}, R^{5a}, R^{5b}, R^6, Y^1, Y^2, Y^3, Y^4, W^3, W^4 and n are as in Claim 33, with a compound represented by a general formula (IIIa)



[IIIa]

wherein: Ar, R^{1a} and CY are as in Claim 33.

Claim 54. (New) The compound according to Claim 33, wherein:

each R^6 is hydrogen;

Y^1 and Y^4 are each independently selected from: –CH–, and –CF–, and

Y^2 and Y^3 are each independently selected from –CH–, –CF–, and –N–,

or a pharmaceutically acceptable salt thereof.

Claim 55. (New) The compound according to Claim 54, wherein:

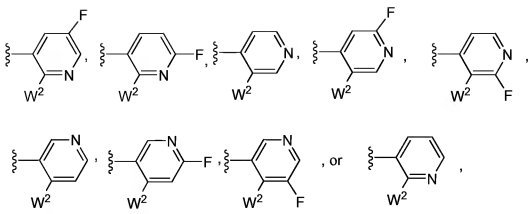
Y^1 and Y^4 are each independently selected from: –CH–, and –CF–,

one of Y^2 and Y^3 is –N– and the other is selected from –CH– and –CF–,

or a pharmaceutically acceptable salt thereof.

Claim 56. (New) The compound according to Claim 55, wherein:

Y^1, Y^2, Y^3, and Y^4 together form:



;

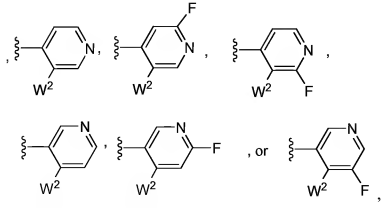
CY is phenyl, 4-fluorophenyl, 4-chlorophenyl, 3,4-difluorophenyl, 4-methoxyphenyl, 4-tolyl, 4-trifluoromethylphenyl, pyridinyl, pyridin-3-yl, pyrazinyl, pyrimidinyl, 6-fluoropyridin-3-yl, 2-fluoropyridin-4-yl, 6-trifluoromethylpyridin-3-yl, 6-methoxypyridin-3-yl, pyrrol-1-yl, pyrazolyl, imidazolyl, 2-methylimidazolyl, 4-methylimidazolyl, 1,2,3-triazol-1-yl, 4-methyl-1,2,3-triazol-1-yl, 1,2,4-triazol-1-yl, 1,2,3,4-tetrazol-1-yl, 1,2,3,4-tetrazol-2-yl, thiazolyl, pyrrolidin-1-yl, piperidinyl, 2-piperidon-1-yl, 2-pyridon-1-yl, 2-pyrrolidon-1-yl, oxazolidin-2-on-1-yl, 4-methanesulfonyl-piperazin-2-on-1-yl, cyclopentyl, or cyclohexyl; and

Ar is phenyl, 4-fluorophenyl, 3,4-difluorophenyl, 4-chlorophenyl, 4-methoxyphenyl, 4-tolyl, 4-trifluoromethylphenyl, pyridinyl, 6-fluoropyridin-3-yl, 6-trifluoromethylpyridin-3-yl, or 6-methoxypyridin-3-yl;

or a pharmaceutically acceptable salt thereof.

Claim 57. (New) The compound according to Claim 56, wherein:

Y^1, Y^2, Y^3, and Y^4 together form:



or a pharmaceutically acceptable salt thereof.

Claim 58. (New) The compound according to Claim 57 selected from the group consisting of:

(1) 2-(4-fluorophenyl)-N-methyl-2-(2-oxo-1-pyrrolidinyl)-N-[3- (spiro[6-azaisobenzofuran-1(3H), 4'-piperidin]-1-yl)propyl]acetamide,

(2) 2-(3,4-difluorophenyl)-N-methyl-2-(2-oxo-1-pyrrolidinyl)-N- [3-(spiro[5-fluoro-6-azaisobenzofuran-1(3H), 4'-piperidin]- 1-yl)propyl]acetamide,

(3) 2-(3,4-difluorophenyl)-N-methyl-2-(2-oxo-1-pyrrolidinyl)-N- [3-(spiro[6-fluoro-5-azaisobenzofuran-1(3H), 4'-piperidin]-1-yl)- propyl]acetamide,

(4) 2-(3,4-difuorophenyl)-N-methyl-2-(2-methyl-1H-imidazol-1- yl)-N-[3-(spiro[5-fluoro-6-azaisobenzofuran-1(3H),4'-piperidin]-1-yl)- propyl]acetamide,

(5) 2-(3,4-difluorophenyl)-2,2-dimethyl-N-methyl-N-[3-(spiro[5- fluoro-6-azaisobenzofuran-1(3H), 4'-piperidin]-1-yl)propyl]acetamide,

(6) 2-(3,4-difluorophenyl)-N-methyl-2-(1H-1,2,4-triazol-1-yl)-N- [3-(spiro[5-fluoro-6-azaisobenzofuran-1(3H),4'-piperidin]-1-yl)propyl]- acetamide,

(7) 2,2-bis(6-fluoro-3-pyridinyl)-N-methyl-N- [3-(spiro[5-fluoro-6-azaisobenzofuran-1(3H),4'-piperidin]-1-yl)propyl]- acetamide,

(8) N-methyl-2,2-bis(6-methoxy-3-pyridinyl)-N-[3-(spiro[5-fluoro- 6-azaisobenzofuran-1(3H), 4'-piperidin]-1-yl)propyl]acetamide,

(9) 2-(6-fluoro-3-pyridinyl)-2-(4-fluorophenyl)-N-methyl-N-[3- (spiro[5-fluoro-6-azaisobenzofuran-1(3H),4'-piperidin]-1-yl)propyl]- acetamide,

(10) 2-(6-fluoro-3-pyridinyl)-N-methyl-2-(6-trifluoromethyl-3- pyridinyl)-N-[3-(spiro[5-fluoro-6-azaisobenzofuran-1(3H), 4'-piperidin]-1-yl)propyl]acetamide,

(11) 2-(6-fluoro-3-pyridinyl)-2-(6-methoxy-3-pyridinyl)-N-methyl- N-[3-(spiro[5-fluoro-6-azaisobenzofuran-1(3H),4'-piperidin]-1-yl)- propyl]acetamide,

(12) 2-(6-fluoro-3-pyridinyl)-2-(4-toluyl)-N-methyl-N- [3-(spiro[5-fluoro-6-azaisobenzofuran-1(3H),4'-piperidin]-1-yl)propyl]- acetamide,

(13) 2-(6-fluoro-3-pyridinyl)-N-methyl-2-phenyl-N- [3-(spiro[5-fluoro-6-azaisobenzofuran-1(3H),4'-piperidin]-1-yl)propyl]- acetamide,

(14) 2,2-bis(4-fluorophenyl)-N-methyl-N-[3-(spiro[5-fluoro-6- azaisobenzofuran-1(3H), 4'-piperidin]-1-yl)propyl]acetamide,

(15) 2-(3,4-difluorophenyl)-N-methyl-2-(1H-pyrrol-1-yl)-N-[3-(spiro[5-fluoro-6-azaisobenzofuran-1(3H),4'-piperidin]-1-yl)propyl]- acetamide,

(16) 2-(4-fluorophenyl)-N-methyl-2-(1H-pyrrol-1-yl)-N-[3-(spiro[5- fluoro-6-azaisobenzofuran-1(3H), 4'-piperidin]-1-yl)propyl]acetamide,

(17) 2-(3,4-difluorophenyl)-N-methyl-2-(1H-pyrazol-1-yl)-N-[3- (spiro[5-fluoro-6-azaisobenzofuran-1(3H), 4'-piperidin]-1-yl)propyl]- acetamide,

(18) 2-(3,4-difluorophenyl)-N-methyl-2-(1H)-pyrrol-1-yl)-N-[3- (spiro[6-fluoro-5-azaisobenzofuran-1(3H),4'-piperidin]-1-yl)propyl]- acetamide,

(19) 2-(6-fluoro-3-pyridinyl)-2-(4-fluorophenyl)-N-methyl-N-[3 - (spiro[6-fluoro-5-azaisobenzofuran-1(3H),4-piperidin]-1-yl)propyl]- acetamide,

(20) 2-(6-fluoro-3-pyridinyl)-2-(4-fluorophenyl)-N-methyl-N-[3- (spiro[6-azaisobenzofuran-1(3H),4-piperidin]-1-yl)propyl]acetamide,

(21) 2,2-bis(6-fluoro-3-pyridinyl)-N-ethyl-N-[3-(spiro[5-fluoro-6- azaisobenzofuran-1(3H), 4'-piperidin]-1-yl)-propyl]acetamide,

(22) 2-(6-fluoro-3-pyridinyl)-2-(2,4-difluorophenyl)-2-hydroxy-N- methyl-N-[3-(spiro[6-fluoro-5-azaisobenzofuran-1(3H),4'-piperidin]-1-yl)propyl]acetamide,

(23) 2-(2,4-difluorophenyl)-2-(6-fluoro-3-pyridinyl)-2-hydroxy-N- methyl-N-[3-(spiro[6-azaisobenzofuran-1(3H), 4'-piperidin]- 1-yl)propyl]acetamide, or

(24) 2,2-bis(4-fluorophenyl)-2-hydroxy-N-methyl-N-[3-(spiro[5- fluoro-6-azaisobenzofuran-1(3H), 4'-piperidin]-1-yl)propyl]acetamide,

or a pharmaceutically acceptable salt thereof.

Claim 59. (New) The compound according to Claim 54, wherein:

Y^1, Y^2, Y^3, and Y^4 are each independently selected from: –CH– and –CF–,

CY is phenyl, 4-fluorophenyl, 4-chlorophenyl, 3,4-difluorophenyl, 4-methoxyphenyl, 4-tolyl, 4-trifluoromethylphenyl, pyridinyl, pyridin-3-yl, pyrazinyl, pyrimidinyl, 6-fluoropyridin-3-yl, 2-fluoropyridin-4-yl, 6-trifluoromethylpyridin-3-yl, 6-methoxypyridin-3-yl, pyrrol-1-yl, pyrazolyl, imidazolyl, 2-methylimidazolyl, 4-methylimidazolyl, 1,2,3-triazol-1-yl, 4-methyl-1,2,3-triazol-1-yl, 1,2,4-triazol-1-yl, 1,2,3,4-tetrazol-1-yl, 1,2,3,4-tetrazol-2-yl, thiazolyl, pyrrolidin-1-yl, piperidinyl, 2-piperidon-1-yl, 2-pyridon-1-yl, 2-pyrrolidon-1-yl, oxazolidin-2-on-1-yl, 4-methanesulfonyl-piperazin-2-on-1-yl, cyclopentyl, or cyclohexyl;

Ar is phenyl, 4-fluorophenyl, 3,4-difluorophenyl, 4-chlorophenyl, 4-methoxyphenyl, 4-tolyl, 4-trifluoromethylphenyl, pyridinyl, 6-fluoropyridin-3-yl, 6-trifluoromethylpyridin-3-yl, or 6-methoxypyridin-3-yl;

or a pharmaceutically acceptable salt thereof.